MATHEMATICAL AND COMPUTATIONAL SCIENCES
DIVISION COLLOQUIUM

COMPUTING AND DISPLAYING CONFIDENCE INTERVALS FOR IMAGES

Dianne P. O'Leary
Dept. of Computer Science, U. of Maryland College Park

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Room 145, NIST North (820)
In Boulder, Room 4550 at 11:00 a.m.

ABSTRACT

We consider the problem of deblurring an image in the case where a small part of the image is of special interest. For example, it may correspond to a particular star cluster in an astronomical image, or a potential tumor in a diagnostic image. First, we show how to apply sophisticated but expensive techniques to subimages, even when their cost is too great to be used on the complete image. Second, we demonstrate the usefulness of confidence intervals for the pixel values. We show how to compute such intervals and how to display them in a novel way that gives the scientist valuable information.

For further information, contact: Bill Mitchell (301) 975-3808.